

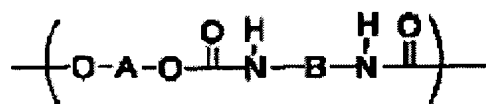
# WATER-SOLUBLE POLYURETHANE HAVING COMB-LIKE HYDROPHOBIC GROUP AND EXTRUSION AID

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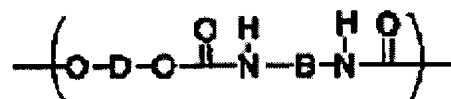
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## Abstract of JP11343328

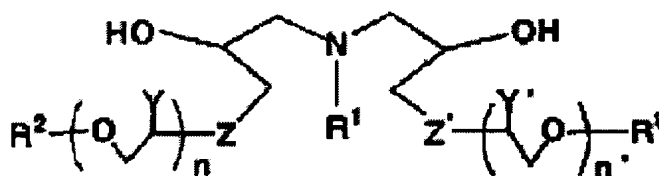
**PROBLEM TO BE SOLVED:** To obtain an extrusion aid having a high ability to retain the shape of a molding and a high solubility by selecting a water-soluble polyurethane containing repeating units each derived from a water-soluble polyalkylene polyol and a polyisocyanate and repeating units each derived from a comb-like hydrophobic diol and a polyisocyanate in a specified molar ratio and having a specified weight-average molecular weight. **SOLUTION:** There is provided a water-soluble polyurethane containing repeating units each derived from a water-soluble polyalkylene polyol having a hydroxyl group at each terminal and a polyisocyanate having a total carbon number of 3-18 and represented by formula I and repeating units each derived from a hydrophobic comblike diol and a polyisocyanate and represented by formula II in a formula I/formula II ratio of (0.5-0.999)/(0.001-0.5) by mole and having a weight-average molecular weight of 10,000-10,000,000. In the formulae, A is a polyol; B is a polyisocyanate; D is a comb-like diol represented by formula III (wherein R<sup>1</sup> is a 1-20C hydrocarbon group; R<2> and R<3> are each a 4-21C hydrocarbon group or the like; Y and Y' are each H, methyl, or the like; and (n) and (n') are each 0-15 when Z and Z' are each oxygen, and are each 0 when Z and Z' are each sulfur or the like).



I



II



III

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